

Remarks

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

Claims 12-16 have been canceled without prejudice, and no claims have been amended. Claim 45 has been added. Consequently, claims 1-11 and 17-45 are currently pending and under consideration.

To provide some background for the discussion below, the present invention relates to knowledge-base systems, and more specifically, but not exclusively, relates to a knowledge-base system configured to uniquely process and respond to inquiries. Organizations today are being swamped with questions from customers and even their own employees. Instead of using a telephone, however, more frequently these inquiries are being sent using alternate sources like web sites and emails. This can create a glut of online information requests that have to be processed by human beings. A customer service representative responding to such emails can be easily overwhelmed, and the responses to the requests may not be timely delivered. This can create dissatisfaction on the part of a customer, which in turn can lead to lost sales. Although automated systems provide quicker responses to questions, the results generated by the automated systems can be typically less accurate than answers from a human being. The client then may repeatedly ask the same question in different ways in an attempt to receive the desired answer from the automated system, and this can lead to frustration. In one embodiment of the present invention, customers and/or employees (clients) can submit questions to a knowledge-base system. The system can detect repeated questions from a particular customer so that a human representative can be alerted to handle the question. The system can also separately index questions and answers to improve the accuracy of the automatically generated answers to questions. The output from these results can be customized by using multiple templates, the question asked, and other information.

In item 2 of the Office Action, claims 1-11 were “rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.” It is well settled law that a claimed invention is enabled when one of ordinary skill in the art is able to make and use the claimed invention without undue experimentation. In determining whether the “undue” experimentation is required, a number of factors are considered, including the nature of the invention, the level of one of ordinary skill in the art and the level of predictability in the art. “[T]he more predictable the art is, the less information needs to be explicitly stated in the specification.” MPEP §2164.03. In making an enablement rejection, “the examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention.” MPEP §2164.04 (emphasis added) (citing, *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)). In making an enablement rejection, the Examiner must consider all parts of the specification, including the claims themselves as originally filed.

In the Office Action, a *prima facie* case of lack of enablement has not been established, because a reasonable basis to question enablement of the claimed invention has not been made. In support of this rejection, the Office Action states that “[i]t is unclear what prompted the knowledge-based system to generate a message.” It is submitted that one of ordinary skill in the art, after reviewing the application as originally filed, would readily understand what prompts the knowledge base system to generate a message. As discussed on pages 16-19 as well as illustrated in FIGS. 1 and 24, a client computer (120) can submit questions to the knowledge-base system (102) in a number of manners, such as via e-mail or through a web-based form (stage 2402). Referring to page 24, the matcher (106) queries the database (108) in order to find question-answer entries relevant to the question (stage 2404). As is described on pages 29-30, a response message is generated in stage 2418, and in stage 2420 the message is sent to the client. After receiving the answer to their question, the client might be unsatisfied with the answer, and therefore, might send a reply to the original message from the system. As noted above, the system can detect repeated questions

from a particular customer so that a representative can be alerted to handle the question. Beginning on page 33, a subroutine for determining whether the message from the client is a reply is described with reference to a flow chart (2500) in FIG. 25. As should be appreciated from the above discussion, independent claim 1 is enabled, and thus, it is respectfully requested that the rejection of claims 1-11 in item 2 be withdrawn.

In item 4, independent claim 1 was "rejected under 35 U.S.C. 102(b) as being anticipated by SU [sic] Pat No 5,517,405 issued to McAndrew et al (hereafter McAndrew '405)." It is well settled law that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference in as complete detail as is contained in the claim. In traversal, the Applicants submit that McAndrew '405 does not disclose the invention set forth in the claims. For example, McAndrew '405 fails to disclose "determining the message from the client computer was a reply to a previously generated message from the knowledge-base system" and "forwarding the message from the client computer to a representative in response to said determining" as recited in claim 1. In the Office Action, it was alleged that column 8, lines 38-49 in McAndrew '405 disclose such a feature. McAndrew '405 generally concerns an expert system that is used to manage the healthcare of patients. For the Examiner's convenience, the complete paragraph of McAndrew '405, which was cited in the Office Action, is provided below (column 8, lines 28-38).

The inference engine can also provide an explanation of the logic it used to make a particular recommendation and/or to suggest alternatives to a proposed solution. This is particularly helpful in the event that a recommendation was made by the system or the user to refer the case to a more experienced reviewer, such as a physician, to make a final decision as to whether the proposed treatment should be certified or not. By having an explanation as to why the case was referred, the reviewer will be able to more quickly focus on the relevant issues that must be addressed to arrive at a final decision.

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It should be appreciated after reading this paragraph that nowhere does the passage explicitly state that the expert system of McAndrew '405 actually forwards a referral to a reviewer. It appears that the system, at most, only recommends that a referral be made. Moreover, there is no inherent disclosure of such a missing feature. For a feature to be inherently disclosed, it must "necessarily be present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." In re Robertson, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citing Continental Can Co. v. Monsanto Co., 948 F2d 1264, 1268 (Fed. Cir. 1991)). Indeed, inherency "may not be established by probabilities or possibilities . . . The mere fact that a certain thing may result from a given set of circumstances is not sufficient." 49 USPQ2d at 1951. Even assuming for arguments sake that the expert system in McAndrew '405 is able to make a recommendation to refer a case to a more experienced reviewer, it is not a necessary consequence that the expert system in McAndrew '405 actually forwards a message to the more experienced reviewer, such as a physician. It is conceivable that the expert system in McAndrew '405 only displays an alert to the user entering information into the system that the case should be referred to a physician, and therefore, it is up to the user to contact the physician. Further, it should be noted that the expert system makes the referral based on the recommended course of treatment and not based on whether a message was received in response to a previous message from the system. Thus, the features recited in claim 1 are not necessarily present, and consequently, would not be inherent in McAndrew '405. For this and other reasons, it is submitted that claim 1 and its dependent claims are allowable over the references of record.

In item 4 of the Office Action, independent claim 17 was "rejected under 35 U.S.C. 102(b) as being anticipated by SU [sic] Pat No 5,517,405 issued to McAndrew et al." In traversal, the Applicants submit that a *prima facie* case of anticipation has not been made. Initially, it should be noted that the Office Action fails to specifically address how independent claim 17 is anticipated by McAndrew '405. Under the

1 "[c]laims 1, 12, 17, 24, 32, 33, 34:" section on pages 2-3, the Office Action only
2 describes the features of independent claim 1 and fails to even discuss claim 17. As
3 should be appreciated, McAndrew '405 fails to disclose a number of features recited
4 in claim 17. For instance, McAndrew '405 fails to disclose or suggest "selecting one
5 or more of the question-answer sets with the system in response to the query input by
6 evaluating presence of the word in one or more answers of the question-answer sets
7 differently than presence of the word in one or more questions of the question-answer
8 sets" as recited in claim 17. Nowhere does McAndrew '405 mention that questions
9 and answers are evaluated differently during selection of one or more question-answer
10 sets. For this and other reasons, it is submitted that independent claim 17 and its
11 dependent claims are allowable over the references of record.

With respect to independent claim 34, it was rejected "rejected under 35
U.S.C. 102(b) as being anticipated by SU [sic] Pat No 5,517,405 issued to McAndrew
et al" in item 4 of the Office Action. The applicants in traversal submit that
McAndrew '405 fails to disclose all of the features recited in independent claim 34.
Some of the features from claim 34 that are missing from McAndrew '405 include for
example "scoring the question-answer sets with respect to the question; determining a
threshold limit based upon said scoring; and selecting the question-answer sets with
scores above the threshold limit." Although McAndrew '405 briefly mentions in
column 7 that retrieval engine 30 is able to retrieve information via keyword searches,
it fails to describe the specific manner in which information is retrieved. In particular,
McAndrew '405 fails to disclose that a threshold limit for selecting question-answer
sets is based on the scoring of the question-answer sets with respect to a question. For
this and other reasons, it is submitted that independent claim 34 and its dependent
claims are allowable over the references of record.

In item 14 of the Office Action, independent claim 39 was "rejected under 35
U.S.C. 103(a) as being unpatentable over McAndrew '405 in view of US Pat No
5,779,549 issued to Walker et al (hereafter Walker '549)." In traversal, the Applicants
submit that a *prima facie* case of obviousness has not been established because there

1 has been shown no teaching, suggestion or motivation to modify the cited reference in
2 the manner that has been asserted in the Office Action to be obvious. Moreover, the
3 Applicants submit that, when properly considered, the only suggestion of the presently
4 claimed invention is provided by the present application.

5 In order to establish a *prima facie* case of obviousness, the Patent Office has
6 the initial burden of identifying in the prior art some teaching, suggestion or
7 motivation to modify the cited reference. Furthermore, the prior art must be taken
8 only for what it would teach or suggest to a person of ordinary skill in the art at the
9 time of the invention, without using impermissible hindsight. Moreover, "it is
10 impermissible within the framework of section 103 to pick and choose from any one
11 reference only so much as it as will support a given position, to the exclusion of other
12 parts necessary to the full appreciation of what such references fairly suggests to one
13 of ordinary skill in the art." In re Wesslau, 353 F.2d 238, 241 (CCPA 1965).

14 The cited references fail to disclose or suggest all of the features as recited in
15 independent claim 39. For example, in the Office Action it was admitted that
16 "McAndrew '405 does not disclose creating a reflexive index that includes the
17 question from the client computer and at least the candidate sets; scoring each question
18 from the candidate sets against the reflexive index; scoring the question from the client
19 against the reflexive index to generate a question score; and choosing the candidate
20 sets with scores that correlate with the question score" but it was proposed that Walker
21 '549 remedies such missing features at column 13, lines 15-40. Although Walker '549
22 uses the term "[r]eflexive software" at column 13, lines 32-33, that is where the
23 similarities between claim 39 and Walker '549 end. It seems that the "reflexive
24 software" in Walker '549 is used to adjust the difficulty levels of game questions
25 based on the skill level of the player. "[T]he difficulty of subsequent questions is
26 based on the accuracy rate achieved on prior questions" (Walker '549, column 13,
27 lines 35-37). As should be appreciated, Walker '549 fails to disclose or suggest a
28 number of stages recited in claim 39. Nowhere does Walker '549 disclose or suggest
29 "selecting one or more candidate sets from the question-answer sets based on the

question from the client computer” and “creating a reflexive index that includes the question from the client computer and at least the candidate sets.” Walker ‘549 fails to describe how, or even if, any type of index is created, let alone if the index includes a received question along with candidate question-answer sets that might answer the received question. Moreover, Walker ‘549 fails to disclose “scoring each question from the candidate sets against the reflexive index; scoring the question from the client against the reflexive index to generate a question score; and choosing the candidate sets with scores that correlate with the question score” in the manner recited in claim 39. As should be appreciated, Walker ‘549 does not score or choose in such a manner. Rather, Walker ‘549 merely mentions that a pool of questions are assigned a difficulty level in advance, and the difficulty level of the subsequent questions sent to a player are based on the player’s accuracy.

Without the benefit of hindsight gained from viewing the present application, one of ordinary skill in the art at the time of the invention would not have modified the cited references as asserted in the Office Action to arrive at the invention as recited in the present claim 39, especially since both references omit a number of features. For this and other reasons, the Applicants respectfully submit that independent claim 39 along with its dependent claims are allowable over the references of record and request that the rejection of these claims under 35 U.S.C. § 103 be withdrawn.

In item 6 of the Office Action, claim 41 was “rejected under 35 U.S.C. 103(a) as being unpatentable over McAndrew ‘405.” Without citing a specific reference, the Office Action stated that “Official Notice is taken that means for providing a response to the FAQ database query in accordance with one or more response templates, the response templates each relating to a different response format is well-known and expected in the art.” In traversal, the Applicants submit that claim 41 is not rendered obvious by McAndrew ‘405 because it fails to disclose a number of features recited in claim 41. For example, McAndrew ‘405 fails to disclose “means for determining a message from a client computer was a reply to a previously generated message from a FAQ database and forwarding the message to a representative in response.” As

1 discussed in detail above, the expert system in McAndrew '405 does not forward a
2 reply message to a representative when it is determined that the message was a reply
3 to a previously generated message. Moreover, McAndrew '405 fails to disclose
4 "means for evaluating question components and answer components of the FAQ
5 database independently relative to an input query." As noted above, McAndrew '405
6 fails to disclose that questions and answers are evaluated independently from one
7 another in its expert system. The applicants also traverse the use of Official Notice
8 with respect to independent 41 and respectfully request that documentary evidence be
9 provided to support the cited contention. As stated at §2144.03 of the Manual of
10 Patent Examining Procedures 8th Edition ("MPEP"), "[a]ny rejection based on
11 assertions that a fact is well-known or is common knowledge in the art without
12 documentary evidence to support the examiner's conclusion should be judiciously
13 applied." "Furthermore, as noted by the court in *Ahlert*, any facts so noticed should be
of notorious character and serve only to 'fill in the gaps' in an insubstantial manner
which might exist in the evidentiary showing made by the examiner to support a
particular ground for rejection." MPEP §2144.03. It is submitted that the taking of
Official Notice for independent claim 41 was not made to merely fill gaps that are of
insubstantial in nature, and if such a feature were as well known as alleged, it should
not take great effort to locate a document that supports this contention. For the above-
discussed reasons and other reasons, it is submitted that independent claim 41 and its
dependent claims are allowable over the references of record.

In item 14 of the Office Action, independent claim 44 was "rejected under 35
U.S.C. 103(a) as being unpatentable over McAndrew '405 in view of US Pat No
5,779,549 issued to Walker et al." In traversal, it is submitted that a *prima facie* case
of obviousness has not been established because the cited references together omit
several features recited in claim 44. For example, both the cited references fail to
disclose a "database further including a question index that associates each of said
words in said question fields with each of said question-answer sets and an answer
index that associates said words in said answer fields with each of said question-

answer sets” and “a matcher operatively coupled to said database to produce a query result using both said question index and said answer index in response to the question from the client computer” as recited in claim 44. It does not appear that the expert system in McAndrew ‘405 has a question index and an answer index, and further the McAndrew ‘405 expert system does not have a matcher that produces query results using both indexes. The Walker ‘549 reference fails to remedy these missing features. For instance, Walker ‘549 fails to disclose that the distributed tournament system 100 incorporates the indexes and matcher as discussed above. For these and other reasons, it is submitted that claim 44 is allowable over the references of record.

It should be understood that the above remarks are not intended to provide an exhaustive basis for patentability or concede the basis for the rejections in the Office Action, but are simply provided to overcome the rejections made in the outstanding Office Action in the most expedient fashion.

In view of the above amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance and an early notice of allowance is earnestly solicited. If after reviewing this amendment the Examiner feels that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the applicants’ undersigned representative by telephone to resolve such issues.

Respectfully Submitted,

By



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